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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,429	08/20/2003	Mehmet Parlar	56.0749	6998
27452	7590	05/24/2004		
SCHLUMBERGER TECHNOLOGY CORPORATION IP DEPT., WELL STIMULATION 110 SCHLUMBERGER DRIVE, MD1 SUGAR LAND, TX 77478			EXAMINER THOMPSON, KENNETH L	
			ART UNIT 3672	PAPER NUMBER

DATE MAILED: 05/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/644,429

Applicant(s)

PARLAR ET AL.

Examiner

Kenn Thompson

Art Unit

3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22 and 23 is/are allowed.
- 6) ☒ Claim(s) 1-3, 10-13 and 19 is/are rejected.
- 7) ☒ Claim(s) 4-9, 14-18, 20 and 21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/8, 4/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 10-13 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Dore et al., U.S. 5,373,899.

Regarding claims 1 and 11, Dore et al. discloses in figures 1-9 a method of completing an interval of an open hole wellbore (2) penetrating a subterranean formation. Dore et al. discloses drilling the wellbore (2) into the formation with a drill string and an oil-based mud (col. 5, lines 12-17), pulling out the drill string, running a sand control string comprising one screen (18) and one alternate path shunt tube (col. 8, lines 33-40) into the wellbore containing the oil-based mud, setting a packer (9,10) at or near the location at which the wellbore penetrates the formation, displacing at least a portion of the oil-based mud with a non-damaging aqueous fluid insensitive to oil-based mud, up to the packer (col. 4, lines 19-24), gravel packing with an aqueous viscous viscoelastic surfactant based carrier fluid (col. 1, line 65 – col. 2, line 5), the viscoelastic surfactant present in an amount effective to provide viscosity sufficient to carry the gravel, the carrier fluid being insensitive to the oil-based mud for a time sufficient to place the gravel and the carrier fluid being capable of breaking in the presence of produced fluid (col. 2, lines 3-5), and producing fluid from the wellbore (G).

As to claims 2 and 12, Dore et al. discloses the wellbore is horizontal (col. 3, lines 23-25).

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As to claims 3 and 13, Dore et al. discloses and invert emulsion oil-based mud (diesel; col. 5, lines 4-25)

As to claims 10 and 19, Dore et al. discloses gravel packing is performed above the formation fracture pressure (col. 6, lines 34-42).

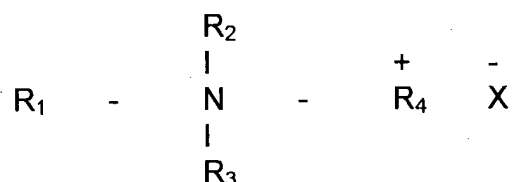
### ***Allowable Subject Matter***

Claims 22 and 23 are allowed.

Claims 4-9 and 14-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

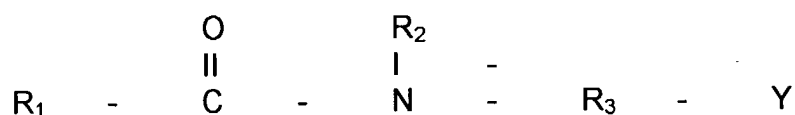
The prior art of record does not disclose or suggest all the claimed subject matter including the viscous viscoelastic surfactant based carrier fluid having an effective amount of a quaternary ammonium salt of the amine corresponding to the formula:



wherein  $R_1$  is at least about a  $C_{16}$  aliphatic group which may be branched or straight chained and which may be saturated or unsaturated,  $R_2$ ,  $R_3$ , and  $R_4$  are each independently, a  $C_1$  to about  $C_6$  aliphatic group which can be branched or straight chained, saturated or unsaturated and which may be substituted with a group that renders the  $R_2$  or  $R_3$  group more hydrophilic, none of  $R_1$ ,  $R_2$ ,  $R_3$  or  $R_4$  is hydrogen, and the  $R_2$ ,  $R_3$ , and  $R_4$  groups may be formed into a heterocyclic 5- or 6- member ring structure which includes the nitrogen atom of the amine, and  $X^-$  is an inorganic anion.

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The prior art of record does not disclose or suggest all the claimed subject matter including the viscoelastic surfactant gel having



in which R<sub>1</sub> is a hydrocarbyl group that may be branched or straight chained, aromatic, aliphatic or olefinic and has from about 14 to about 26 carbon atoms and may contain an amine; R<sub>2</sub> is hydrogen or an alkyl group having from 1 to about 4 carbon atoms; R<sub>3</sub> is a hydrocarbyl group having from 1 to about 5 carbon atoms; and Y is an electron withdrawing group.

The prior art of record does not disclose or suggest all the claimed subject matter including the viscoelastic surfactant gel comprises CaC12.

The prior art of record does not disclose or suggest all the claimed subject matter including the non-damaging aqueous fluid insensitive to oil-based mud is selected from the group consisting of an aqueous hydroxyethyl cellulosesolution, an aqueous xanthan solution, and an aqueous clarified xanthan solution.

The prior art of record does not disclose or suggest all the claimed subject matter including a non-damaging aqueous fluid insensitive to oil-based mud is used as a pre-pad.

### **Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Thompson, Sr. et al., U.S. 6,302,209 ; Norman et al., U. S. 5,551,516 ; Hall et al., U.S. 5,089,151 ; Teot et al., U.S. 4,725,372 and Lybarger et al., U.S. 3,892,275 disclose a similar fluid.

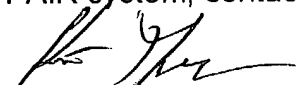
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Parlar et al., U.S. 6,631,764 ; Patel, U.S. 6,218,342 ; Himes et al., U.S. 5,363,916 and Bolin, U.S. 4,662,447 discloses a similar gravel pack method.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenn Thompson whose telephone number is 703 306-5760. The examiner can normally be reached on 7:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J Bagnell can be reached on 703 308-2151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



14 May 2004